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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/275,934 | 03/24/1999 | MARK WILLIAM JANOSKA | 1400.4100209 | 1410 |

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EXAMINER

HOANG, THAI D

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 04/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/275,934

Applicant(s)

JANOSKA ET AL.

Examiner

Thai D Hoang

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 6-11, 19, 22 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiher, U.S patent No. 6,081,530 in view of obviousness skill in the art.

1.1 Regarding claims 1 and 15, Wiher discloses a system, which called "Transmission ATM Cell". The system comprises (figure 2):

a. a switch core, wherein the switch core has a plurality of inputs and outputs (elements 241-242). The switch core passes data received on the plurality of inputs to the plurality of outputs based on routing tag (header),

b. a plurality of line card managers (master control shelf, elements 211-214), which couples to the switch core and adapts to a plurality of line cards.

Wiher does not teach that each line card manager includes an arbiter and a router. The arbiter couples to a pair of line cards and to a corresponding input of the plurality of inputs of the switch core, and provides ingress data from one of the pairs of line card to the corresponding input to the switch core base on selection information. Moreover, Wiher does not disclose that a router couples to a corresponding out put of the plurality of outputs of the switch core and a pair of line cards. The router provides

egress data from an output to at least one of a pairs of line cards based on routing information.

However, Wiher discloses a main master control processor and a backup master control processors (MCP) in a master control shelf, which route ATM cell between the trunk cards (interface with the switch core) and master line adapter card (MLA); and between MLA and line cards. Furthermore, the main and backup MCP provide configuration and control information to the switch core and line cards (column 17, lines 4-19.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the functionality of the MCP in the Wiher's system in order to control the line cards more effectively.

1.2 Regarding claims 2 and 16, Wiher discloses a line card manager, which has a buffer to temporarily store data cells received from or being transmitted to over the interfaces (column 18, lines 38-41). Moreover, the main and backup MCP provide ingress data from a buffer to a switch core based on the selection information (column 17, lines 11-19.)

1.3 Regarding claim 3, Wiher does not disclose a buffer comprise the first and second buffer, where in the first buffer coupled to the first line card, and a second buffer coupled to the second line card. However, Wiher teaches that every line card in the system has a buffer (element 520, figure 5 and column 8, lines 34-43.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the buffer of each line card in Wiher's system in order to minimized the structure of the system.

2. Claims 4-5 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wiher as applied to claims 1 and 15 above, and further in view of Tsuzuki, U.S patent No. 5,398,235.

2.1 Regarding claims 4 and 17, Whier does not disclose the selection information determine an active or inactive line card of a line card pair, and the arbiter preferentially pass active line card data over inactive line card data.

However, Tsuzuki discloses a system, which is called "Cell Exchanging Apparatus". The system comprises the selection information signal (system change-over signal, figures 2, 3, 8, 9) to determine an active switch and inactive switch. Moreover, the controller in Tsuzuki's system preferentially passes data through a active switch over inactive switch.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt a "system change-over signal" function as disclosed by Tsuzuki's into Wiher's system in order to monitor the line cards in the system.

2.2 Regarding claim 5, Wiher does not disclose that when an idle state present in the active line card, the arbiter switches data to the inactive line card.

However, Tsuzuki teaches that when an idle cell is detected, the controller determines to active the stand by switch (column 5, lines 41-58.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the idle cell method as disclosed by Tsuzuki into Wiher's system in order to detect a fail line card and switch to standby line card.

2.3 Regarding claim 18, Wiher discloses a system, which comprises the steps of:

a. providing the ingress data to an input of a switch core, wherein the switch core has a plurality of inputs and outputs (figures 2-5, column 7, lines 15-46)

b. receiving egress data from one of the plurality of outputs of a switch core (figures 2-5, column 7, lines 15-46, column 8, lines 34-52.)

c. providing the output data to at least one of a plurality of line cards (column 8, lines 34-52.)

Wiher does not teach that the system includes redundancy line cards and comprises the step of selecting ingress data from data received from a first line card and a second line card, wherein selecting is based on an active select signal. This signal determines an active line card and an inactive line card from the first and second line cards (first limitation.)

However, Tsuzuki discloses a system, which includes a redundant switch, and comprising the step of selecting ingress data from the first and second switch, wherein selecting based on active select signal (system change-over signal). This signal determines an active switch and an inactive switch (abstract.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt "system change-over signal" as disclosed by Tsuzuki into Wiher system in order to control the line cards more effectively.

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2.4 Regarding claim 19, Wiher does not teach a system comprise a buffer for buffering the data from line cards prior to selecting the ingress data.

However, buffering data is used in almost all communication equipment.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the buffer in to Wiher's system in order to control data flow from an input to an output.

3. Regarding claims 12-14, Wiher discloses a system, which is based on ATM cell technique.

Allowable Subject Matter

4. Claims 6-11 and 20-23 are objected to as being dependent upon a rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to the application:

US patent No. 6169726B1 to Dempsey et al

US patent No. 6,091,731 to Biegaj et al

US patent No. 5,909,427 to Manning et al

US patent No. 5,903,544 to Sakamoto et al

US patent No. 5,953,314 to Ganmukhi et al

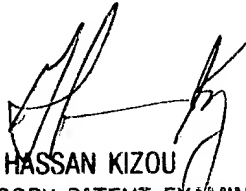
US patent No. 5,854,786 to Henderson et al

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (703) 305-3232. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703) 305-4744. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Thai Hoang D.
April 8, 2002


HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600